

WHAT IS CLAIMED IS:

1. An organic synthesis reaction vessel in the form of a single hollow tube as a whole, comprising:
 - 5 a horizontal part;
 - a vertical part formed by bending upward from an end of the said horizontal part;
 - an inlet formed by bending upward from the other end of the said horizontal part;
 - 10 an outlet formed by bending the upper part of the said vertical part in parallel with the said horizontal part in the opposite direction to the said inlet and engaged with a connection joint;
 - and a filter mounted within one end of the said horizontal part or the said vertical part.
- 15 2. The organic synthesis reaction vessel of the claim 1 wherein the filter is a organic solvent resistant filter.
3. A block device for reaction vessels, comprising:
 - 1 a hexahedral frame whose front is capable of getting closed or opened;
 - 2 a block contacting with the inner face of the rear side and inner faces of both sides of the said frame without a gap and having a vacuum passage going through both sides of the said frame horizontally; a plurality of cock grooves formed in the upper part in a specific intervals and depth; connection joint insertion grooves formed in the front part in the same intervals with the said cock grooves so

as to connect to the said cock grooves; a plurality of small vacuum tubes formed in the same intervals with the said cock grooves and connecting the said cock grooves and the said vacuum passage; and a plurality of sample outlets connecting the outer face of the rear side of the said frame to the said cock grooves:

- 5 a plurality of cocks having the connection joint insertion groove, the said small vacuum tube, and a first and a second passage connecting the said connection joint insertion groove and the said outlet respectively, and rotating after inserted into the said cock grooves without a gap;

10 a catch projection extending from the said vacuum passage in the outside of one side of the said hexahedral frame;

15 a catch groove capable of closely engaging with the said catch projection and stopper without a gap in the other side which is connected to the said catch projection by the vacuum passage.

20 4. The block device for reaction vessels of the claim 3 wherein the frame further comprises a cover having a hole capable of blowing gases into in the upper face of the frame.

25 5. A method for synthesizing a compound or a library of compounds by using the organic synthesis reaction vessel of the claim 1 or 2 and the block device for reaction vessels of the Claim 3 or 4.

30 6. The method of the claim 5 wherein the compound is a peptide.

35 7. The method of the claim 5 wherein the compound is a oligonucleotide.